

- 12 -

The Claims:

1. A burner for a heater for combustion of a hydrocarbon liquid, the burner comprising:
 - 5 a combustion chamber having a combustion zone for combusting the hydrocarbon liquid and at least one tank portion for containing an amount of the hydrocarbon liquid, the or each tank portion being positioned adjacent the combustion zone and being arranged to feed the
 - 10 hydrocarbon liquid into the combustion zone, the or each tank portion being at least in part filled with a filling material having a plurality of portions that pass through the interior of the or each tank portion.
- 15 2. The burner as claimed in claim 1 wherein the filling material is arranged for distribution of at least some of the heat that is in use developed in the combustion zone and directed into the or each tank portion whereby local heat maxima in the tank portion are reduced and thereby
- 20 likelihood of ignition in the tank portion is reduced.
3. The burner as claimed in claim 1 or 2 wherein the filling material more than one hundred particles which define spaces between them.
- 25 4. The burner as claimed in claim 1 or 2 wherein the filling material comprises a mesh.
5. The burner as claimed in claim 1 or 2 wherein the
- 30 filling comprises a mesh gauze.
6. The burner as claimed in claim 1 or 2 wherein the filling material comprises a steel wool.

- 13 -

7. The burner as claimed in any one of the preceding claims wherein the filling material comprises a metallic material.

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8. The burner as claimed in any one of the preceding claims being a part of a fireplace.

9. The burner as claimed in any one of the preceding
10 claims comprising a combustion control means for controlling gas exchange of the combustion in the first combustion zone.

10. The burner as claimed in claim 9 wherein the control
15 means comprises an opening that allows diffusion of oxygen into the combustion chamber and a closure for the opening.

11. The burner as claimed in claim 10 wherein the combustion control means may comprises a shutter that is
20 arranged to adjust the opening so as to control the combustion the combustion zone.

12. The burner as claimed in claim 10 or 11 wherein the shutter is arranged to close the opening so as to
25 extinguish a flame in combustion zone.

13. The burner as claimed in claim 12 wherein the shutter is arranged so that, when the opening is closed, the lid portion overlaps the shutter.

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14. The burner as claimed in any one of the preceding claims comprising spacers positioned adjacent an external portion of the burner and arranged to avoid direct contact

- 14 -

between the burner and an item that supports the burner.

15. The burner as claimed in any one of the preceding claims comprising a tray in which the burner is positioned 5 and which is arranged to avoid direct contact between the burner an item that supports the burner.

16. The burner as claimed in claim 14 or 15 wherein the item is combustible.

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17. The burner as claimed in any one of the preceding claims arranged for positioning in an item so that at least a portion of the burner is positioned below a surface of the item.

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18. The burner as claimed in any one of the preceding claims arranged for positioning in a fireplace.

19. The burner as claimed in any one of the preceding 20 claims arranged for positioning in a furniture item.

20. The burner as claimed in any one of the preceding claims wherein the combustion chamber comprises a fuel inlet opening through which the hydrocarbon liquid may be 25 filled into the or each tank portion of the combustion chamber.

21. The burner as claimed in claim 20 wherein the fuel inlet opening is remote from the opening of the combustion 30 control means.

22. The burner as claimed in claim 20 or 21 wherein the fuel inlet opening comprises a closure.

- 15 -

23. The burner as claimed in claim 10 or in anyone of claims 11 to 22 when dependent on claim 10 being arranged so that, when the shutter of the combustion control means 5 is fully open, the shutter of the fuel inlet opening is closed and only when at least a portion of the shutter of the combustion control means is closed the fuel inlet opening is fully open.
- 10 24. The burner as claimed in claim 23 wherein the shutter of the combustion control means and the shutter of the fuel inlet means are provided in form of an integral part.
- 15 25. The burner as claimed in any one of the preceding claims comprising two tank portions between which the combustion zone is positioned.
- 20 26. The burner as claimed in claim 24 wherein the tank portions are separated from the combustion zone by wall portions that comprise apertures to allow the fuel to penetrate from the tank portions into the combustion zone.
- 25 27. A heater comprising the burner as claimed in any one of claims 1 to 26.
28. A burner for a heater for combustion of a hydrocarbon liquid, the burner comprising:
a combustion chamber having a combustion zone for combusting the hydrocarbon liquid and at least one tank portion for containing an amount of the hydrocarbon liquid, the or each tank portion being positioned adjacent the combustion zone and being arranged to feed the hydrocarbon liquid into the combustion zone,

- 16 -

and a fuel inlet portion having a closure, and
a combustion control means for controlling gas
exchange of the combustion zone through an gas exchange
opening of the combustion chamber

5 wherein the closure of the fuel inlet opening is
arranged so that filling of the fuel into the or each tank
portion is only possible if the combustion control means
closes at least a portion of the gas exchange opening of
the combustion chamber.

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29. The burner as claimed in claim 28 wherein the
combustion control means typically comprises a shutter for
controlling the gas exchange through the gas exchange
opening of the combustion chamber and wherein the closure
15 of the fuel inlet opening also includes a shutter.

30. The burner as claimed in claim 29 wherein the
shutter for controlling gas and the shutter of the fuel
inlet opening are coupled.